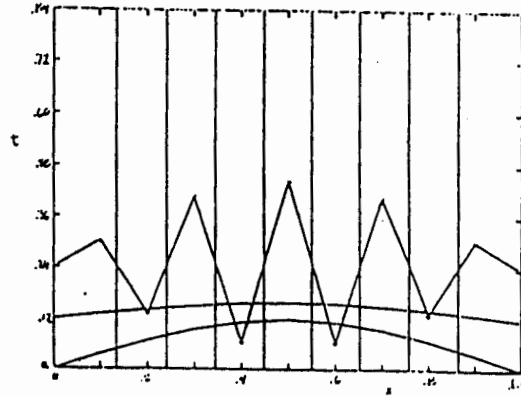




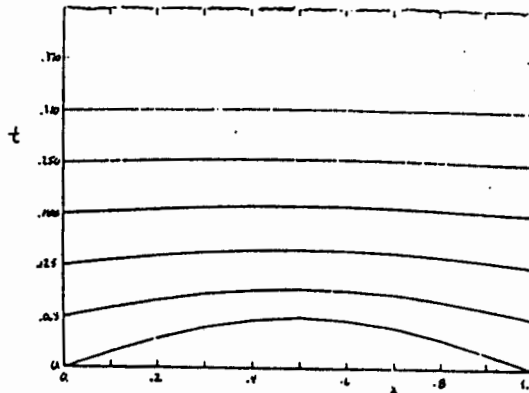
# Computational Fluid Dynamics & Applied Numerical Methods

Instructor: Professor G.E. Karniadakis

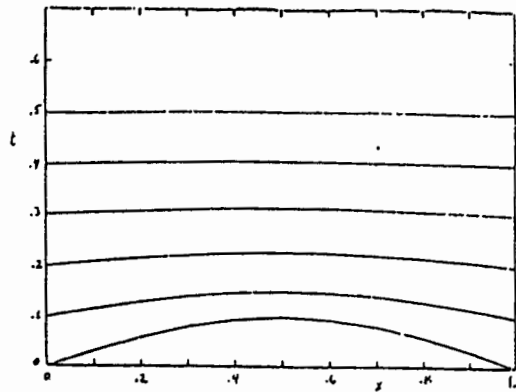
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(a)



(b)



(c)

Numerical solution of transient heat conduction using central finite difference, and

(a) Euler-Forward in time ( $D = 0.7; D_c = 0.5$ )

(b) Euler-Forward in time ( $D = 0.4; D_c = 0.5$ )

(c) Euler-Backward in time ( $D = 10$ )